TRIM® E701 is a high quality soluble oil designed primarily for the machining and grinding of yellow metals.

**Soluble Oils**

**Geared up for production:**

With superior lubricity and a higher oil content, TRIM® emulsions provide a greater boundary layer between the tool and the material. Emulsions are ideal for lower, less than 600 SFPM, applications such as broaching, reaming, deep hole drilling, drilling, tapping and centerless grinding.

Emulsions work well for machining copper, yellow metals, steel alloys, cast aluminiums, wrought aluminiums and tough-to-machine titanium and nickel-based alloys.

Gear up with the TRIM emulsion designed to meet your production needs.

**Choose E701:**

- Very stable formula provides long operational life with consistent performance
- E701 is compatible with all ferrous and nonferrous materials but is specifically designed for "free machining" yellow metals
- Will not form the sticky, water insoluble residues commonly seen when machining yellow metals
- Will not stain or darken brass or other yellow metal alloys
- Fine particle size emulsion reduces carryoff and facilitates getting the fluid to the point of cut
- E701 provides sufficient mechanical lubricity to run well in older swiss style machines as well as in modern high speed CNC machines
- E701 rejects tramp oil to extend sump life
- Protects machine and tool surfaces while also preventing sticky ways, chucks, tool holders and fixtures
- Coolant is easily removed with water, working solution or aqueous cleaners
- Easy recycling or disposal with conventional techniques and equipment

**E701 especially for:**

*Applications* — centerless grinding, deep hole drilling, drilling, high-speed milling, high-speed turning, machining, milling, moderate-duty machining, reaming, sawing, tapping, thread forming, turning

*Metals* — aluminium, brass, bronze, copper and steel alloys

*Industries* — general industry

**E701 is free of** — amines, boron, chlorine, formaldehyde releasers
E701
Cutting and Grinding Fluid Concentrate

Application Guidelines

- It can run at lower concentrations for higher speed operations (where heat removal is the key issue).
- Higher concentrations are recommended on soft, gummy materials and for lower speed operations where friction reduction and control of built-up edge are critical.
- Concentrations above 5% provide the best sump life.
- For additional product application information, including performance optimisation, please contact your Master Fluid Solutions' Authorised Distributor at https://www.2trim.us/distributors.php, your District Sales Manager, or call our Tech Line at +49 211 77 92 85 - 13.

Physical Properties Typical Data

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Colour (Concentrate)</td>
<td>Brown</td>
</tr>
<tr>
<td>Colour (Working Solution)</td>
<td>Milky white</td>
</tr>
<tr>
<td>Odour (Concentrate)</td>
<td>Bland</td>
</tr>
<tr>
<td>Form (Concentrate)</td>
<td>Liquid</td>
</tr>
<tr>
<td>Flash Point (Concentrate) (ASTM D93-08)</td>
<td>&gt; 160°C</td>
</tr>
<tr>
<td>pH (Concentrate as Range)</td>
<td>10.3 - 10.5</td>
</tr>
<tr>
<td>pH (Typical Operating as Range)</td>
<td>8.5 - 9.5</td>
</tr>
<tr>
<td>Coolant Refractometer Factor</td>
<td>1.0</td>
</tr>
</tbody>
</table>

Recommended Metalworking Concentrations

- Light duty: 5.0% - 6.5%
- Moderate duty: 6.5% - 8.5%
- Heavy duty: 8.5% - 10.0%
- Design Concentration Range: 5.0% - 10.0%

Concentration by % Brix

\[
\% \text{ Concentration} = \text{Refractive Reading} \times \text{Refractive Factor}
\]

Health and Safety

For further information, see the most recent SDS which is available directly from Master Fluid Solutions or from your Master Fluid Solutions' Authorised Distributor.
Mixing Instructions

- Recommended usage concentration in water: 5.0% - 10.0%.
- To help ensure the best possible working solution, add the required amount of concentrate to the required amount of water (never the reverse) and stir until uniformly mixed.
- Use premixed coolant as makeup to improve coolant performance and reduce coolant purchases. The makeup you select should balance the water evaporation rate with the coolant carryout rate. Use our Coolant Makeup Calculator to find the best ratio for your machine: apps.masterfluidsolutions.com/makeup/.
- Use mineral-free water to improve sump life and corrosion inhibition while reducing carryoff and concentrate usage.

Ordering Information

20-litre pail
204-litre drum
1000-litre IBC

Additional Information

- Use Master STAGES™ Whamex™ for a quick and thorough precleaning of your machine tool and coolant system.
- Consult Master Fluid Solutions before using on any metals or applications not specifically recommended.
- This product should not be mixed with other metalworking fluids or metalworking fluid additives, except as recommended by Master Fluid Solutions, as this may reduce overall performance, result in adverse health effects, or damage the machine tool and parts. If contamination occurs, please contact Master Fluid Solutions for recommended action.
- TRIM® is a registered trademark of Master Chemical Corporation d/b/a Master Fluid Solutions.
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- The information herein is given in good faith and believed current as of the date of publication and should apply to the current formula version. Because conditions of use are beyond our control, no guarantee, representation, or warranty expressed or implied is made. Consult Master Fluid Solutions for further information. For the most recent version of this document, please go to this URL: https://2trim.us/di/?plr=E701*en*eu